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09/736,462Remarks/Arguments

This application has been carefully reviewed in light of the office action mailed October 3, 2003. Claims 1-3, 6-9, 28 and 29 are pending in this application. Support for the preamble phrase "packaged semiconductor device" can be found on page 3, lines 33-35; page 5, lines 6-8 and page 6, lines 7-9. Support for new claims 28 and 29 can be found on page 4 lines 19-24. Applicant respectfully requests early and favorable acceptance of this application.

REJECTIONSRejections under 35 U.S.C. § 102

Claims 1-3, and 6-9 are rejected under 35 U.S.C. § 102(e) as being anticipated by Yoneda et al. (hereinafter Yoneda). Applicants respectfully traverse the rejection.

Claim 1 as currently amended recites a packaged semiconductor device (e.g., 800) that includes a leadframe having a die carrier (e.g., 106) and a plurality of leads (e.g., 108) having a first surface formed having bump indentations (e.g., 109) and a second surface having bump terminals (e.g., 110). A semiconductor die has a surface supported by the die carrier and formed with a plurality of conductive bumps (e.g., 802) for attaching to the plurality of bump indentations.

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The Yoneda reference shows a resin packaged device having a chip 311 attached to adhesive tape 347 and mounted to metallic film 315 using bump 342.

The Yoneda reference does not show or teach a packaged semiconductor device having a leadframe, wherein the leadframe has a die carrier and a lead having a first surface formed having a bump indentation and a second surface formed having a bump terminal. The Yoneda resin packaged device 310J, 310K, or 310L have no leadframe or die carrier.

The resin packaged device of Yoneda does not include the leadframe 17, as the "resin package is separated from the leadframe" (c11, lines 63-65; c12 lines 62-65; c13 lines 65-67; c14, lines 47-50; c15, lines 43-45; c16, lines 17-19; c16, lines 63-65; and c39 line 53 through c40 line 62). Thus, the Yoneda leadframe is not included in the Yoneda resin package device. Moreover, without separation of the leadframe from the resin packaged device, the metallic films 315 could not be used to attach the packaged resin device to a customer printed circuit board as is typical.

Additionally, the descriptor 347 refers to adhesive tape 347, not a die carrier. Tape 347 is used to prevent the occurrence of defective sealing of the gap between the chip and the bottom of the resin package during molding (as taught in c40, lines 45-63 of the reference). In further contrast, applicant's die carrier (e.g., 106) is part of the leadframe (e.g., 100), whereas the Yoneda tape is not.

Therefore, Applicants believe the rejection under 35 U.S.C. § 102 is overcome. As claims 2-3, and 6-9 depend from

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claim 1, they should be allowable for at least the same reasons.

Conclusion

This application has been carefully reviewed in light of the office action mailed Dec 8, 2003. Claims 1-21 are believed to be in condition for allowance. Applicants have reviewed the other prior art made of record and believe that such art does not affect the patentability of the invention.

Applicants respectfully request early and favorable acceptance of this application.

While no fee is believed due by filing this Amendment, the Commissioner is hereby authorized to charge any fees due or credit any overpayment to Deposit Account 501086. Specifically, applicants believe that with previous cancellation of claims 4-5, new claim 28 and 29 are within the original filing fee.

If there are matters that can be discussed by telephone to further the prosecution of this application, applicants invite the examiner to call the undersigned attorney at the examiner's convenience.

Respectfully submitted,
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